

# A TELEPHONY DEVICE FOR PROVIDING AUDIO TELECOMMUNICATION BETWEEN A USER AND A COMPUTER OR OVER A PSTN

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## FIELD OF THE INVENTION

The present invention relates to the fields of telephonic communications and computer telephony. More precisely, the present invention relates to a telephony device, such as a cordless handset, for providing two-way and or one-way communication with other audio devices, while retaining the ability to serve as a standard cordless telephone device over a public switched telephone network (PSTN), with the capability of performing both functions simultaneously.

## BACKGROUND OF THE INVENTION

Cordless or wireless communications may include a computer, laptop computer or notebook, palm device or Web TV device. With the huge popularity and movement in consumer usage in Internet telephony, areas such as voice recognition, home automation (voice commands), Internet navigation, voice controlled computer programs, online instant messengers and online voice mail programs are being incorporated.

Cordless telephones for example, have become very popular in the consumer marketplace. An example of one is disclosed in U.S. Pat. No. 4,591,661. The invention is a cordless telephone transceiver having a broadcast RF receiver. This invention is designed to connect to PSTN public switched telephone network and has no capability to connect externally to any other audio device.

A wide selection of cordless telephones, indicate the consumer's interest in communication mobility. Cordless telephones operate by transmitting an RF radio frequency between a handset and or headset and a base unit, which is connected to a PSTN. The typical handset is equipped with a number pad, for dialing numbers, and a ringer so the user can send and receive, initiate and terminate telephone calls. Other functionality may be incorporated into the

terminate telephone calls. Other functionality may be incorporated into the handset and or headset, for example, communication with the base or a paging function initiated from the base to help find the handset or headset. Using RF as its communication link enables the user to roam from room to room and even outside while using the phone. The user is limited to a certain reception area. The consumer market has become very accustomed to the convenience of these devices, and in turn, very familiar with their interface.

A large percentage of the end user base already use a wired microphone, and or, wired speakers and or, a corded microphone headset. Consequently, software manufactures design their service or product to be pre-configured for these devices. The designs utilize the standard microphone jack or input jack or audio input jack and or speaker jack or output jack or speaker out jack of most audio devices. If the end user was already using a wired or cordless microphone, and or, wired or cordless speakers and or, increasingly popular, corded or cordless (wireless) microphone headset, devices could plug directly into the same jacks that they were already utilized. Other connections are possible and include but are not limited to, USB (universal serial bus) connection, RF (radio frequency) transmitter and or receiver, IR (infrared) transmitter and or receiver, or any other cabled or cordless connections.

There are many different computer hardware platforms and operating systems. If a nonproprietary interface will work on PC compatible systems as well as, but not limited to, Macintosh computers it will work on any multimedia computer that has the capability of audio input and or audio output (to be fully functional both are required). A device may require software to be loaded in order for it to operate with many different audio devices, or computers with sound cards, audio equipment such as audio recorders and audio players, other telephony equipment or any device that has an audio input and or audio output.

Therefore what is required is a useful tool that would operate in an already successful market and have at its disposal a way to make existing products even

more useful than they already were. What is further required is a less constrictive and less cumbersome method of audio input and or output to a computer.

A design that will work as a standard cordless telephone as well as a full duplex communication device is required that will interface with a typical sound card enabled computer with a standard Internet connection, and would have the ability to conduct Internet enabled telephone calls using third party software. In addition, what is required is a device that can host an Internet call and a Standard Telephone Call, simultaneously, and can conference call between the Internet Call and the Standard Telephone Call or put one or the other on hold.

### **SUMMARY OF THE INVENTION**

To overcome the limitations in the prior art described above, and to overcome other limitations that will become apparent upon reading and understanding the present specification, the present invention is embodied in a telephony device, which can be a cordless handset, for providing two-way and or one-way communication with other audio devices, while retaining the ability to serve as a standard cordless telephone device over a public switched telephone network (PSTN), with the capability of performing both functions simultaneously.

The invention provides the user with a cordless (RF) radio frequency communication device that interfaces with a wide variety of audio components and or computer hardware and or software, while retaining the ability to be used simultaneously as a cordless and or hands free telephone.

Accordingly, the invention may be in active communication with, but not limited to, a computer, laptop computer or notebook, palm device or Web TV device and or external audio devices. Variations of the invention include the following.

Cordless sound input for use in place of a cabled microphone. The microphone from the handset could be used, or a headset could be plugged into the handset and become hands free. Cordless sound output can be used for listening to sound normally heard through external speakers and or pc speaker,